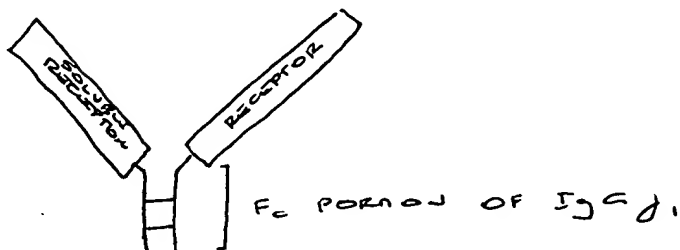


CONSTRUCTION PLAN IgG γ_1 VECTOR

PURPOSE: WILL BUILD A VECTOR FOR EXPRESSION OF SOLUBLE RECEPTORS FUSED TO IgG γ_1 HEAVY CHAIN. THIS EXPRESSION SYSTEM ALLOWS AN EASY WAY TO PURIFY SOLUBLE RECEPTOR OVER A PHENYL A COLUMN. THEN PROVIDES A HANDLE FOR USING IN GOING AFTER LIGAND.



- IgG γ_1 PORTION OF FUSION INCLUDES HINGE REGIONS CH₂, CH₃
- FUSION IS CONSIDERED AS A MONOMER BUT DIMERIZES VIA IT'S TWO CYSTEINE'S IN THE HINGE REGION

PLAN

5':

GLU - PRO - LYS - SER - CYS - ASP - LYS - THR - HIS - THR ...
 ↳ 1st A. ACID OF HINGE REGION

↳ LYS CHANGED TO ARGinine TO ALLOW CONSTRUCTION OF Bgl II SITE (FANSLAW, ET AL. J. OF IMMUNOL. 149: 655-660)

↳ CYS CHANGED TO SER JUL 15, 1992.
 TO ELIMINATE UNBOUND CYS IN HINGE REGION.
 THIS CYS NORMALLY BIND LIGHT CHAIN, BUT LIGHT CHAIN IS NOT NECESSARY FOR CREATION OF A FUNCTIONAL FUSION (BENNETT, ET AL. J. OF BIO. CHEMISTRY 266 (34) 23060-23067 DEC 5, 1991)

3':

WILL BE IDENTICAL TO NATURE